APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/881,763	06/18/2001	Catharine Anne Maple	1509-189	8249

7590 03/25/2004		EXAMINER	
IP Administration		RODRIGUEZ, GLENDA P	
C/o Hewlett-Packard Company			
3404 East Harmony Road		ART UNIT	PAPER NUMBER
Mailstop 35		2651	
Fort Collins, CO 80528-9599			
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Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)	
Office Action Summary	09/881,763	MAPLE ET AL.	
	Examiner	Art Unit	
	Glenda P. Rodriguez	2651	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 December 2003*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-8 and 10-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nonoyama et al. (WO 99/50850) in view of Nieuwkerk (US Patent No. 5, 905, 600) and Bui et al. (US Patent No. 6, 532, 128).

Regarding Claim 1, 7, 8 and 10, Nonoyama et al. teach a method/program/medium of locating a position on a linear data storage medium from which to write data, said method comprising the steps of:

Transporting the data storage medium past a read head (WO 99/50850; Page 9, Lines 4-15);

Reading a linear position data describing a linear position along said data storage medium and from said linear position data (WO 99/50850; Page 18, Line 26 to Page 19, Line 8 and Page 6, Lines 3-22. Nonoyama et al. indicates that as soon as the data is recorded, each has its own append identification data that help the controller to identify the last append point to which data can be thus stored.);

Determining an approximate position of an append position from which to start

writing data by responding to the read linear position (WO 99/50850; Page 6,

Lines 18-22);

Having found said approximate position of said append point, reading an absolute

block identifier number to identify individual block along the length of said data

storage medium (WO 99/50850; Page 15, Lines 7-14 and Page 15 Line 26 to Page

16, Line 9 and Page 6, Lines 3-22. Nonoyama et al. indicates that when

appending data, the tape reel is reeled, detecting the target append point by the

detectors. Nonoyama et al. indicates that by using the controller, the medium

reads the data, comparing it with the controller, until finding the target append

data identification.);

Comparing said read head absolute block with a target absolute block (WO

99/50850; Page 15, Lines 7-14 and Page 15 Line 26 to Page 16, Line 9 and Page

6, Lines 3-22. Nonoyama et al. indicates that by using the controller, the medium

reads the data, comparing it with the controller.);

Finding a correspondence between said read absolute block and said target

absolute block (WO 99/50850; Page 15, Lines 7-14 and Page 15 Line 26 to Page

16, Line 9 and Page 6, Lines 3-22. Nonoyama et al. indicates that by using the

controller, the medium reads the data, comparing it with the controller, until

finding the target append data identification.);

If a match between said read absolute block and said target absolute block is

found, then generating an interrupt signal to interrupt transport of said data

storage medium past said read head (WO 99/50850; Page 10, Line 11 to Page 11 Line 25 and Page 15, Lines 7-14 and Page 15 Line 26 to Page 16, Line 9 and Page 6, Lines 3-22. It is known that in order for a magnetic tape to change operations from searching to writing or reading, an interrupt signal has to be emitted in order for the medium to recognize that the target data has been found.);

And commencing a write operation from a position of said read absolute block which matches said target absolute block (WO 99/50850; Page 10, Line 11 to Page 11 Line 25 and Page 15, Lines 7-14 and Page 15 Line 26 to Page 16, Line 9. Nonoyama et al. indicates that the medium can perform both reading and writing unless the medium indicates otherwise.).

Nonoyama et al. fail to teach that the block is actually a code word. However, this feature is well known in the art as disclosed by Nieuwkerk, wherein it teaches that blocks contain code words (Pat. No. 5, 905, 600; Col. 4, Lines 34-42). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Nonoyama et al.'s invention in order to use code words in order to improve the capabilities for recording data signals (Pat. No. 1, Lines 43-45). Nonoyama et al. and Nieuwkerk fail to teach that the position data is linear position data. However, this feature is well known in the art as disclosed by Bui et al., wherein it teaches a tape that appends the data by reading the linear position (Pat. No. 6, 532, 128; Col. 5, Line 66 to Col. 6, Line 24.). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Nonoyama et al.'s invention in order to synchronoze the head with the recording media.

Regarding Claims 4 and 12, Nonoyama et al. disclose a method of locating an append

point along a length of linear storage medium (WO 99/50850; Page 9, Lines 4-15 and Page 15,

Lines 7-14 and Page 15 Line 26 to Page 16, Line 9), said append point indicating a position onto

which data are to be written along said linear data storage medium (WO 99/50850; Page 15,

Lines 7-14 and Page 15 Line 26 to Page 16, Line 9), said method comprising the steps of:

> Reading a plurality of absolute Block numbers from at least one track of said data
>
> storage medium (WO 99/50850; Page 10, Line 28 to Page 11, Line 25.
>
> Nonoyama et al. teach that data is placed in groups in each read track, each track
>
> having its own append data different from the other groups.);
>
> Comparing said read absolute Block number with a pre-stored target absolute
>
> Block number (WO 99/50850; Page 15, Lines 7-14 and Page 15 Line 26 to Page
>
> 16, Line 9. Nonoyama et al. indicates that by using the controller, the medium
>
> reads the data, comparing it with the controller.);
>
> Finding a match between a read absolute Block number and said stored target
>
> absolute Block number (WO 99/50850; Page 15, Lines 7-14 and Page 15 Line 26
>
> to Page 16, Line 9. Nonoyama et al. indicates that by using the controller, the
>
> medium reads the data, comparing it with the controller, until finding the target
>
> append data identification.);
>
> Generating an interrupt signal for interrupt of transport of said tape data storage
>
> medium based on the found match (WO 99/50850; Page 10, Line 11 to Page 11
>
> Line 25 and Page 15, Lines 7-14 and Page 15 Line 26 to Page 16, Line 9. It is
>
> known that in order for a magnetic tape to change operations from searching to

writing or reading, an interrupt signal has to be emitted in order for the medium to

recognize that the target data has been found.).

Nonoyama et al. fail to teach that the block is actually a code word. However, this feature is well

known in the art as disclosed by Nieuwkerk, wherein it teaches that blocks contain code words

(Pat. No. 5, 905, 600; Col. 4, Lines 34-42). It would have been obvious to a person of ordinary

skill in the art, at the time the invention was made, to modify Nonoyama et al.'s invention in

order to use code words in order to improve the capabilities for recording data signals (Pat. No.

1, Lines 43-45). Nonoyama et al. and Nieuwkerk fail to teach that the position data is linear

position data. However, this feature is well known in the art as disclosed by Bui et al., wherein it

teaches a tape that appends the data by reading the linear position (Pat. No. 6, 532, 128; Col. 5,

Line 66 to Col. 6, Line 24.). It would have been obvious to a person of ordinary skill in the art,

at the time the invention was made, to modify Nonoyama et al.'s invention in order to

synchronoze the head with the recording media.

Apparatus claim 11 is drawn to the apparatus corresponding to the method of using same

as claimed in claim 4. Therefore apparatus claim 11 corresponds to method claim 4, and are

rejected for the same reasons of obviousness as used above.

Regarding Claim 2, Nonoyama et al., Nieuwkerk and Bui et al. teach all the limitations of

Claim 1. Nonoyama et al. also teach reading at least one absolute block (WO 99/50850; Page 10,

Line 28 to Page 11, Line 12. Nonoyama et al. teach that each segment of data is packed into

groups, each segment having a sub-code in order to segment or distinguish each segment of

data.). Nonoyama et al. fail to teach that the block is actually a code word. However, this

feature is well known in the art as disclosed by Nieuwkerk, wherein it teaches that blocks contain

code words (Pat. No. 5, 905, 600; Col. 4, Lines 34-42). It would have been obvious to a person

of ordinary skill in the art, at the time the invention was made, to modify Nonoyama et al.'s

invention in order to use code words in order to improve the capabilities for recording data

signals (Pat. No. 1, Lines 43-45).

Regarding Claim 3, Nonoyama et al., Nieuwkerk and Bui et al. teach all the limitations of

Claim 1. Nonoyama et al. also teach a method that further comprises distinguishing between a

first and second written block within a same block, by searching for a synchronization field

selected from the set (W0 99/50850; Page 9, Lines 15-27. Nonoyama et al. discloses that each

group has a particular append point in each group of code words.); a forward synchronization

field; a back synchronization field and a re-synchronizing field (W0 99/50850; Page 9, Lines 18-

25 and Page 16, Lines 10-14. Nonoyama et al. indicates that the tape is able to move forward

and backwards during searching.). Nonoyama et al. fail to teach that the block is actually a code

word. However, this feature is well known in the art as disclosed by Nieuwkerk, wherein it

teaches that blocks contain code words (Pat. No. 5, 905, 600; Col. 4, Lines 34-42). It would

have been obvious to a person of ordinary skill in the art, at the time the invention was made, to

modify Nonoyama et al.'s invention in order to use code words in order to improve the

capabilities for recording data signals (Pat. No. 1, Lines 43-45).

Regarding Claim 5, Nonoyama et al., Nieuwkerk and Bui et al. teach all the limitations of

Claim 4. Nonoyama et al. also teach distinguishing between a pair of absolute block numbers

read from a pair of block within a block (W0 99/50850; Page 10, Line 28 to Page 11, Line 12.

Nonoyama et al. teach that each segment of data is packed into groups, each segment having a

sub-code in order to segment or distinguish each segment of data.); selecting said append point

as a first said block within said block (WO 99/50850; Page 10, Line 28 to Page 11, Line 25.

Nonoyama et al. teach that many data segments are placed in groups in each track, each track

having its own append point different from the other groups.). Nonoyama et al. fail to teach that

the block is actually a code word. However, this feature is well known in the art as disclosed by

Nieuwkerk, wherein it teaches that blocks contain code words (Pat. No. 5, 905, 600; Col. 4,

Lines 34-42). It would have been obvious to a person of ordinary skill in the art, at the time the

invention was made, to modify Nonoyama et al.'s invention in order to use code words in order

to improve the capabilities for recording data signals (Pat. No. 1, Lines 43-45).

Regarding Claim 6, Nonoyama et al., Nieuwkerk and Bui et al. teach all the limitations of

Claim 1. Nonoyama et al. also teach a method that further comprises distinguishing between a

first and second written block within a same block, by searching for a synchronization field

selected from the set (WO 99/50850; Page 9, Lines 15-27. Nonoyama et al. discloses that each

group has a particular append point in each group of code words.); a forward synchronization

field; a back synchronization field, a re-synchronizing field (WO 99/50850; Page 9, Lines 18-25

and Page 16, Lines 10-14. Nonoyama et al. indicates that the tape is able to move forward and

backwards during searching.) and a data separating field (WO 99/50850; Page 10, Line 28 to

Page 11, Line 25. Nonoyama et al. teach that many data segments are placed in groups in each

track, each track having its own append point different from the other groups.). Nonoyama et al.

fail to teach that the block is actually a code word. However, this feature is well known in the art

as disclosed by Nieuwkerk, wherein it teaches that blocks contain code words (Pat. No. 5, 905,

600; Col. 4, Lines 34-42). It would have been obvious to a person of ordinary skill in the art, at

the time the invention was made, to modify Nonoyama et al.'s invention in order to use code words in order to improve the capabilities for recording data signals (Pat. No. 1, Lines 43-45).

Regarding Claim 13, Nonoyama et al., Nieuwkerk and Bui et al. teach all the limitations of Claim 12. Nonoyama et al. further teach responding to the interrupt signal by commencing a write operation from a position of said read absolute block which matches said target absolute block (WO 99/50850; Page 10, Line 11 to Page 11 Line 25 and Page 15, Lines 7-14 and Page 15 Line 26 to Page 16, Line 9 and Page 6, Lines 3-22. It is known that in order for a magnetic tape to change operations from searching to writing or reading, an interrupt signal has to be emitted in order for the medium to recognize that the target data has been found. Nonoyama et al. indicates that the medium can perform both reading and writing unless the medium indicates otherwise.). Nonoyama et al. fail to teach that the block is actually a code word. However, this feature is well known in the art as disclosed by Nieuwkerk, wherein it teaches that blocks contain code words (Pat. No. 5, 905, 600; Col. 4, Lines 34-42). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Nonoyama et al.'s invention in order to use code words in order to improve the capabilities for recording data signals (Pat. No. 1, Lines 43-45).

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nonoyama et al. (WO 99/50850), Nieuwkerk and Bui et al. as applied to claim 8 above, and further in view of Sakamoto (US Pat. No. 4, 390, 909). Nonoyama et al. teach all the limitations of Claim 8. Nonoyama et al. fail to teach comprising a read only memory device (i.e., ROM). However, this feature is well known in the art, as disclosed by Sakamoto, wherein it discloses a tape drive with a ROM (Pat. No. 4, 390, 909; See Fig. 5, elements 31, 32, 33 Sakamoto indicates that these

elements are ROM memory devices). It would have been obvious to a person of ordinary skill in the art, at the time the invention was made, to modify Nonoyama et al., Nieuwkerk and Bui et al.'s invention in order for the medium to more efficiently monitor the scanning of data.

Response to Arguments

Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection due to the newly amended claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Yamasaki et al. (US Patent No. 5, 731, 922) and Coleman et al. (US Patent No. 5, 339, 108).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenda P. Rodriguez whose telephone number is (703)305-8411. The examiner can normally be reached on Monday thru Thursday: 7:00-5:00; alternate Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (703)308-4825. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

gpr
March 9, 2004.

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